ON A NEW ATHECATE HYDROID HATAlA PARVA, N. GEN., N.SP.

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ON A NEW ATHECATE HYDROID *HATAIA PARVA*, N. GEN., N.SP.

By

ETURÔ HIRAI and MAYUMI YAMADA

平井越郎・山田真弓

Marine Biological Station of Asamushi, Tôhoku University, Aomori City, and Zoological Institute, Faculty of Science, Hokkaido University, Sapporo, Japan

Several times during the past few years Hirai and other staff members of the Asamushi Marine Biological Station noticed a peculiar type of hydroids at the shore in front of the Asamushi Aquarium. This species is of solitary form and was found on the leaves of a sea weed *Dictyota spathulata* or on the shell surface of *Mytilus*. The polyps show a scattered arrangement of filiform tentacles which suggests that this species belongs to the Clavidae. A survey of the known species of the family revealed that it represents a new species of a new genus. The following is the descriptions of the species and the genus.

The types are deposited in the Asamushi Marine Biological Station.

The authors, here, thank Dr. Masahiko Takamatsu of the Hirosaki University for his kind identification of a sea weed *Dictyota spathulata*, and Dr. Makoto Toriumi of the Asamushi Marine Biological Station for his suggestions on the nomenclature.

Hataia n. gen.

Polyp solitary, attached, not invested with perisarc. Hydranth claviform or sub-cylindrical, with scattered filiform tentacles. Hydrocaulus not developed. Gonophores fixed sporosacs, borne on the body of hydranth among the tentacles.

Hataia parva n. sp. (Figs. 1–5)

The polyps are solitary, not grouped in clusters, attached on the leaves of a sea weed or on the shell surface of a bivalve with a proximal base. They are clavate or sub-cylindrical, attaining about 3 mm in height in the preserved material. In the living state, they are longer and more slender (Fig. 4). The hydrocaulus is not developed. The hydranths are provided with about 13–20 filiform tentacles which are scattered almost all over the hydranth column. The polyps are not invested with a perisarc, and reddish orange in color. At the distal end of the hydranth there is a conical hypostome, at the summit of which a mouth opens. The

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sexes are separated and are indistinguishable in sterile polyps. The polyps often produce some asexual buds from the hydranth body among tentacles. They grow into small-sized polyps with tentacles and then they are liberated.

The gonophores grow among tentacles from the body surface of mostly about middle part of hydranth. They are sporosacs not producing free medusae. The female sporosacs are nearly spherical with an apical process and a short stalk, about 0.6 mm in length and 0.5 mm in width. Two developed planulae were observed inside an oval gonophore (Fig. 2). The male gonophores are of slightly elongated oval shape with a more pointed apical process and a short stalk, about 0.8 mm in

Fig. 1

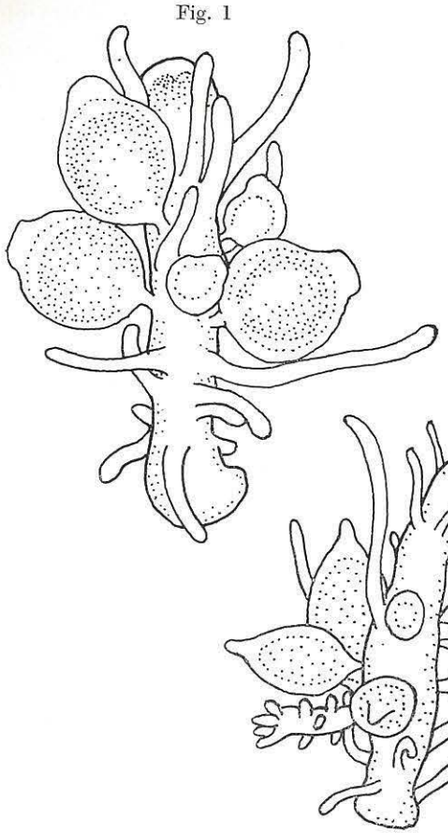

Fig. 2

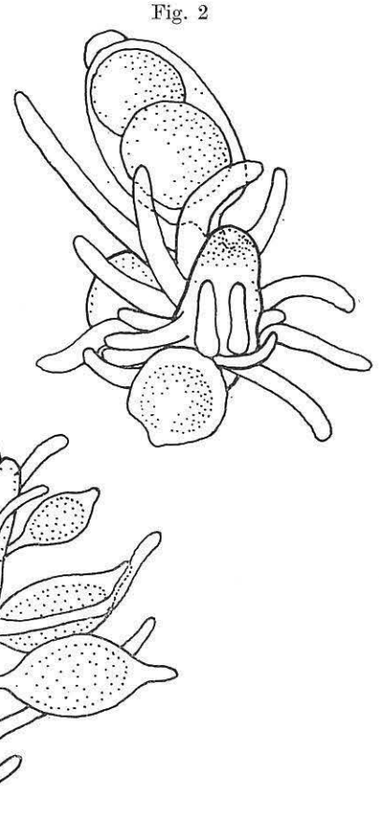

Fig. 3

Fig. 1. A female polyp with younger gonophores of *Hataia parva*, n. gen., n. sp. A sketch of a preserved material of about 3 mm in height.
Fig. 2. A female polyp with a young gonophore and an oval one which contains two developed planulae. Oral view. A sketch of a preserved material.
Fig. 3. A male polyp with gonophores and a new polyp bud. A sketch of a preserved material.

Fig. 4

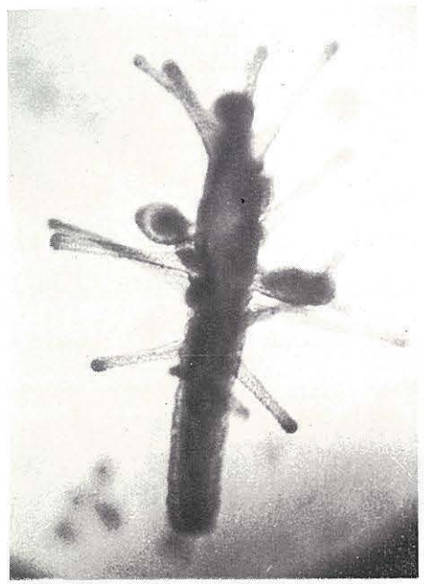

Fig. 5

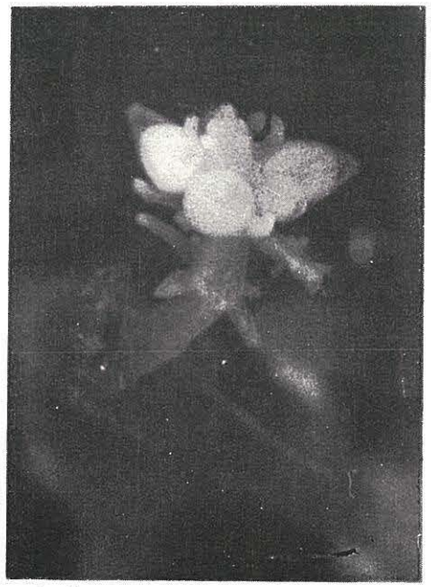

Fig. 4. A living younger polyp. Sex indetermined.
Fig. 5. A living female polyp with gonophores and a new polyp bud attached on *Dictyota spathulata*. Distal part of polyp bent behind.

length and 0.5 mm in width. Each polyp bears male or female gonophores in different state of development.

Several specimens of this new hydroid were collected at different times between 1957 and 1962, at the tidal shore just in front of the Asamushi Aquarium. One specimen was found on the shell surface of *Mytilus* and all others were found on the leaves of a sea weed *Dictyota spathulata*. The specimens were collected chiefly in February, while one in May and other one in June. The specimen collected in June bore no gonophores.

One of the authors, Hirai, tried to rear the specimens in the laboratory by feeding with *Artemia* nauplii, but in every case the polyps took little food and thus he failed to keep them for a long period of time in the laboratory. During the cultures, on the other hand, asexual budding of the new polyps from the parent polyps in the culture were very frequently observed and these new polyps were liberated from the parents and became attached elsewhere with the proximal base.

As described above the tentacles of this species are filiform and show scattered arrangement on the hydranth body. This character shows that it is very reasonable to put the species in the Clavidae. Some main features of the present species, however, such as the solitary form of the polyps, very degenerated type of the gonophores and their pattern on the polyp, are very unique in the Clavidae. So

far as the authors know, no such hydroid with these features has been found in any genus of the family, so they here propose a new genus and a new species.

The genus name is taken after the late Dr. Shinkishi Hatai, Professor Emeritus of the Tôhoku University and founder of the Asamushi Marine Biological Station, in recognition of his interest in the fauna of Mutsu Bay.

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